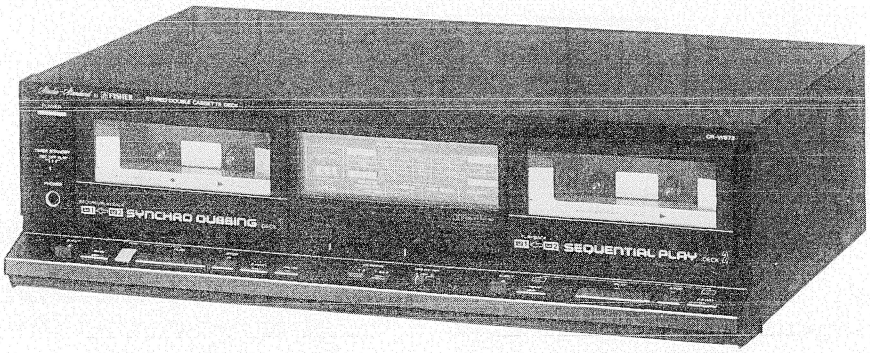
SERVICE MANUAL

FISHER

STEREO DOUBLE CASSETTE DECK

CR-W873

(EUROPE)



142 466 03

SPECIFICATIONS

Motor ..... (2) DC Governor
Cassette Loading ..... (2) Front
Drive Sistem ..... (2) Capstan
Number of Heads 3
Head Material ..... Hard Permalloy/Ferrite
Operation ..... (2) Full Logic Mechanism
Dubbing ..... Normal/High Speed
Wow & Flutter ..... 0.045 % WRMS
Signal-to-Noise Ratio (CCIR Weighted)
- Dolby NR OFF ..... 53 dB
- Dolby NR ON B ..... 63 dB
- Dolby NR ON C ..... 73 dB

(Dolby is registered trademark of Dolby Laboratories.)

Erase Ratio ..... 70 dB
Channel Separation ..... 40 dB
Signal Crosstalk ..... 70 dB
Frequency Responce 1-7/8 IPS
- Normal Tape (±3 dB) ..... 30 Hz - 15 kHz
- CrO_2 Equivalent Tape (±3 dB) ..... 30 Hz - 16 kHz
- Metal Tape (±3 dB) ..... 30 Hz - 18 kHz

Total Harmonic Distortion
- at 0 VU ..... 1.2 %

Fast Forward / Rewind Time
- (C-60) ..... 110 sec.

Level Indicators ..... (2) L.E.D. Meters
Inputs (Sensitivity / Impedance) ..... (2) Line
100 mV / 50 kΩ
Outputs (Level at 0 VU / Impedance) ..... (2) Line
500 mV / 2.2 kΩ
Auto Tape Select ..... Normal, CrO_2, Metal
Tape Counter ..... Mechanical

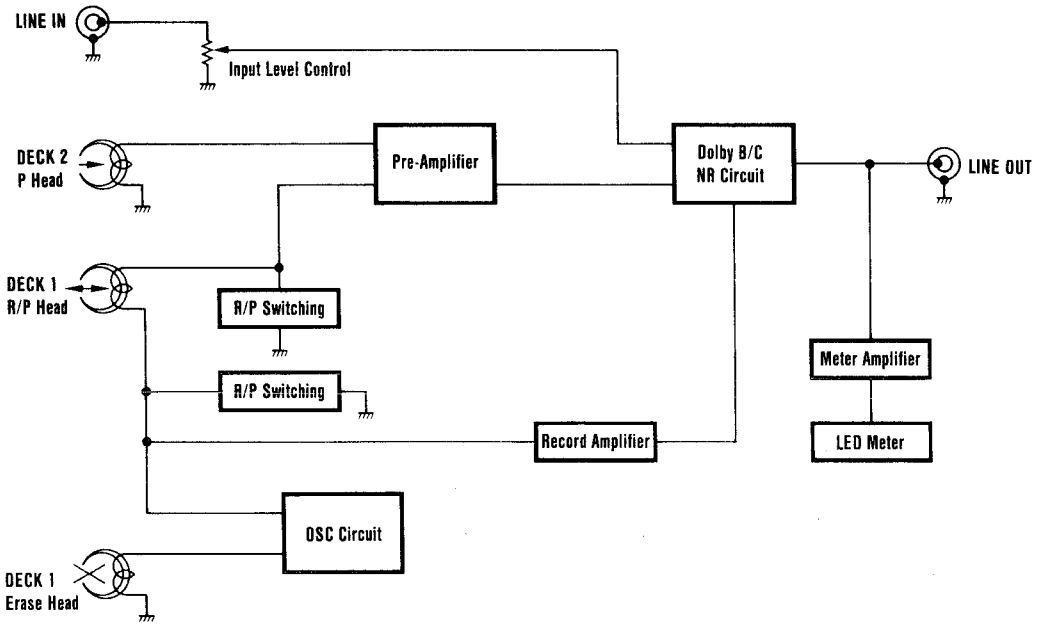
GENERAL

Power Requirements (50Hz) ..... AC: 220 V
Power Consumption ..... 26 Watts
Dimentions (W x H x D) ..... 440 x 120 x 285 mm
Weight (approx) ..... 4.5 kg

– Specifications subject to change without notice. –

REFERENCE No. WM-19818

FUNCTIONAL BLOCK DIAGRAM



CASSETTE DECK ELECTRICAL ADJUSTMENTS

BEFORE ADJUSTMENT

If the tape surface whitch contacts the head, the capstan, and the pinch roller, etc., is stained, it will cause unstable running of the tape, wow and flutter, imperfect recording and erasing, deterioration of tonal quality, and the tape jam around the capstan, etc. Occasionally clean each part as follows;

1. Cut off power.
2. Open the cassette lid.
3. Wipe the head, the capstan, and the pinch roller with a cotton swab. If they are excessively stained, clean them with the swab soaked in absolute alcohol or cleaning liquid on the market.

MEASURING INSTRUMENTS REQUIRED

- Dualtrace Oscilloscope
- AC VTVM (AC voltmeter with high impedance)
- Dummy Load (47kΩ)
- Frequency Counter
- Signal Oscillator
- Test Tapes
  - ‡ 10kHz Test Tape (Example: TEAC MTT-114) for Azimuth Adjustment
  - ‡ 3kHz Test Tape (Example: TEAC MTT-111) for Tape Speed Adjustment
  - ‡ 1.5kHz Test Tape (Example: A.BEX TCW-211) for Tape Speed Adjustment
  - ‡ 400Hz Test Tape (Example: TEAC MTT-150) for Playback sensitivity Adjustment
- Test Tape for Recording and Playback Operations
  - ‡ Normal Tape (Example: TDK AC 223)

SWITCH POSITIONS

Unless especially indicated, set each switch as follows;

DOLBY NR Switch ..... OFF

NORMAL TAPE SPEED ADJUSTMENT

1. Connect the dummy load (47kΩ) and the frequency counter to the LINE OUT terminal L.
2. Load Deck 1 with a test tape (Example: TEAC MTT-111) and set it in the playback mode.
3. Adjust the potentiometer inside the capstan drive motor, so that the output becomes 3000Hz ±5Hz.
4. Perform the same adjustment for Deck 2.

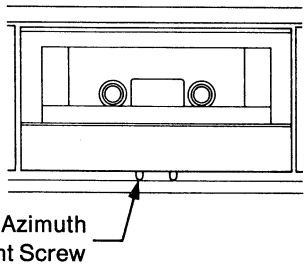
HIGH SPEED TAPE SPEED ADJUSTMENT

1. Connect the dummy load (47kΩ) and the frequency counter to the LINE OUT terminal L.
2. Connect the High Speed Test Point to the GND (for example, chassis).
3. Load Deck 2 with a test tape (Example: A.BEX TCW-211) and set it in the playback mode.
4. Then observe the frequency (Within 3000 ±180Hz).
5. Load Deck 1 with the same test tape.
6. Adjust P601, so that the Deck 2 frequency should become as same as Deck 1.

HEAD AZIMUTH ADJUSTMENT

1. Connect the dummy load (47kΩ) and the dualtrace oscilloscope to the LINE OUT terminals L and R.
2. Load Deck 1 with a test tape (Example: TEAC MTT-114) and set it in the playback mode.
3. Adjust the head azimuth adjustment screw, so that the wave forms become maximum on the oscilloscope and the right wave form overlaps with the left one.

CASSETTE DECK ELECTRICAL ADJUSTMENTS (Continued)



4. Adjust Deck 2 in the same way as for Deck 1.

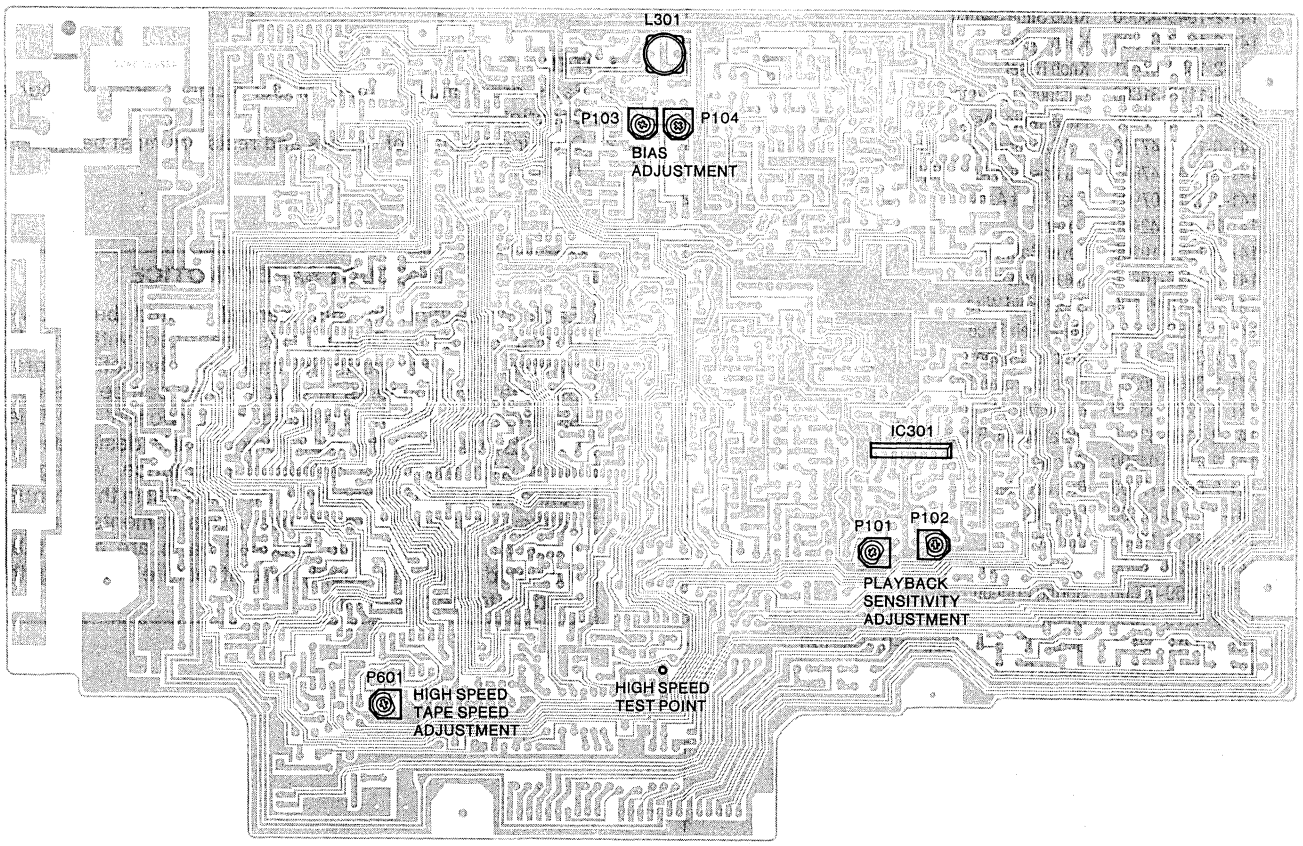
PLAYBACK SENSITIVITY ADJUSTMENT

1. Conncet the dummy load (47kΩ) and AC VTVM to the LINE OUT terminal L.
2. Load Deck 1 with a test tape (Example: TEAC MTT-150) and set it in the playback mode.
3. Adjust P101, so that the output of LINE OUT becomes 480mV.
4. Connect AC VTVM to the LINE OUT terminal R and adjust P102, so that the output becomes 480mV.

BIAS ADJUSTMENT

1. Connect the low frequency oscillator to the L side of the LINE IN terminal, and the dummy load (47kΩ) and AC VTVM to the L side of the LINE OUT terminal.
2. Load Deck 1 with a normal tape (Example: TDK AC223) and set it in the recording mode.
3. Set the input level volume control to the maximum position and set the record balance volume control to the center position.
4. Feed the signals of 1kHz and 12kHz at 7mV (−43dBs) from the frequency generator into the unit. Then, record the signals on the tape.
5. Play back the recorded signals adjust P103, so that the difference in output of the 1kHz and 12kHz signals become ±0.5dB.
6. Adjust P104 for the R side by following the same procedures as described for the L side.

AMPLIFIER P.C.BOARD ALIGNMENT POINTS
(TOP VIEW)



CABINET & CHASSIS PARTS LIST

Ref. No.	Part No.	Description	Q'ty
	PACKAGE		
	131-6-3069-16350	Patching Sheet	1
	141-6-1419-86306	Individual Carton	1
	141-6-1469-05100	Pad Top	1
	141-6-1469-13501	Pad Left	1
	141-6-1469-13601	Pad Right	1
	141-6-2519-22290	Sheet Polyethylene	1
	131-6-4559-11200	Serial No. Sheet	2
	141-6-4559-03300	Serial No. Sheet	2
	ACCESSORIES		
	4-2359-78359	Connector 10P Assy	1
	131-0-4004-15200	RCA Cord 700mm Black	1
	131-0-4004-15201	RCA Cord 700mm Gray	1
	131-2-7103-54400	Label	2
	131-6-2719-10401	Bag Fan	1
	142-6-4119-33387	Instruction Booklet	1
	CABINET		
	141-2-4469-34601	Cushion	1
	⚠ 4-2239-70970	Capacitor 0.01MF400V	1
	141-2-4359-22500	Cover Capacitor	1
	141-2-4729-07100	Wire Band	5
1	131-2-1601-85208	Knob Power	1
2	141-0-1649-02700	Knob Function Assy Left	1
3	141-0-1649-02800	Knob Function Assy Right	1
4	141-2-1649-36400	Knob Slide Switch	1
5	141-2-1649-42300	Knob Dubbing	1
6	141-2-1649-43300	Knob Volume	1
7	141-2-1649-43400	Knob Balance	1
8	141-2-1649-43600	Knob Slide Switch	1
9	141-2-1649-51600	Knob Eject	2
10	141-2-1659-47401	Knob Reset	1
11	141-0-1129-31800	Cabinet Front Assy	1
12	141-0-1149-17400	Panel Meter Assy	1
13	141-0-1249-47700	Lid Cassette Assy Left	1
14	141-0-1249-47800	Lid Cassette Assy Right	1
15	141-0-5519-07903	Gear Eject Assy	2
16	141-2-1129-42400	Cover	1
17	141-2-1259-10100	Cover Cabinet	1
18	141-2-1329-16210	Clear Meter	1
19	141-2-2419-38100	Sheet Hold Wire	2
20	141-2-3159-06000	Metal Reinforce	2
21	141-2-3169-30800	Bracket Support	1
22	141-2-3169-30900	Bracket Power Left	1
23	141-2-3169-33700	Metal Mount Left	1
24	141-2-3169-33800	Metal Mount Right	1
25	141-2-4569-04600	Washer	1
26	141-2-5649-17300	Belt Counter	1
27	141-2-7429-06800	Lever Eject	2
28	141-2-8119-15300	Counter	1
29	141-2-8529-40400	Spring Cassette-Up	2
30	141-2-8559-03000	Spring Friction	2
31	141-2-4219-11600	Screw	6
32	141-2-4219-33101	Screw, Bind Hd. Tapping-B, +M3.0x8	4
33	131-2-3614-21800	Mount P.C.B.	1
34	131-2-4203-17200	Washer	1
35	131-2-6111-14200	Bushing (4N-4)	1
36	141-2-1219-40204	Rear Panel	1
37	141-2-1259-10000	Cover Bottom	1
38	141-2-3119-28200	Chassis Cabinet	1
39	141-2-3159-04500	Panel Side Right	1
40	141-2-3159-05300	Support Angle Mecha	1
41	141-2-3719-05500	Fix Trans	2
42	141-2-7539-91000	Post Support PCB	1
43	141-2-8559-18100	Spring Reset	1
44	131-2-1801-12900	Leg	4
45	⚠ 4-2519-74320	Power Trans	1
46	⚠ 4-2432-00500	Power Cord	1
47	⚠ 4-2312-05030	Switch Push Power [S27]	1
51	141-0-1939-19942	Amplifier P.C.B. Assy	1
52	141-0-1939-19950	LED Meter P.C.B. Assy	1
53	141-0-1939-19981	Function Key 1 P.C.B. Assy	1
54	141-0-1939-19991	Function Key 2 P.C.B. Assy	1
55	141-0-1939-20000	Timer P.C.B. Assy	1
56	141-0-1939-20010	Headphone P.C.B. Assy	1
57	141-0-1939-20030	Lamp P.C.B. Assy	1
58	141-0-1939-20241	LED 1 P.C.B. Assy	1
59	141-0-1939-20251	LED 2 P.C.B. Assy	1
71	411 039 1607	SCR PAN 2X5	4
72	411 021 0809	SCR S-TPG BIN 2X6	5
73	411 021 2704	SCR S-TPG BIN 2.6X6	17
74	411 021 3107	SCR S-TPG BIN 2.6X8	15
75	411 020 8004	SCR S-TPG BRZ 3X8	10
76	411 021 5705	SCR S-TPG BIN 3X6	1
77	411 022 4608	SCR S-TPG FLT 3X8	6
78	411 020 6208	SCR S-TPG BRZ 3X12	8
79	411 021 6603	SCR S-TPG BIN 3X8	1
80	411 099 9803	SCR S-TPG BRZ 3X8	6
81	411 020 7700	SCR S-TPG BRZ 3X6	18
82	411 020 7007	SCR S-TPG BRZ 3X20	1
83	411 045 5408	SCR PAN+SW 3X5	2
84	411 021 9109	SCR S-TPG BIN 4X6	1
85	411 021 9604	SCR S-TPG BIN 4X8	2

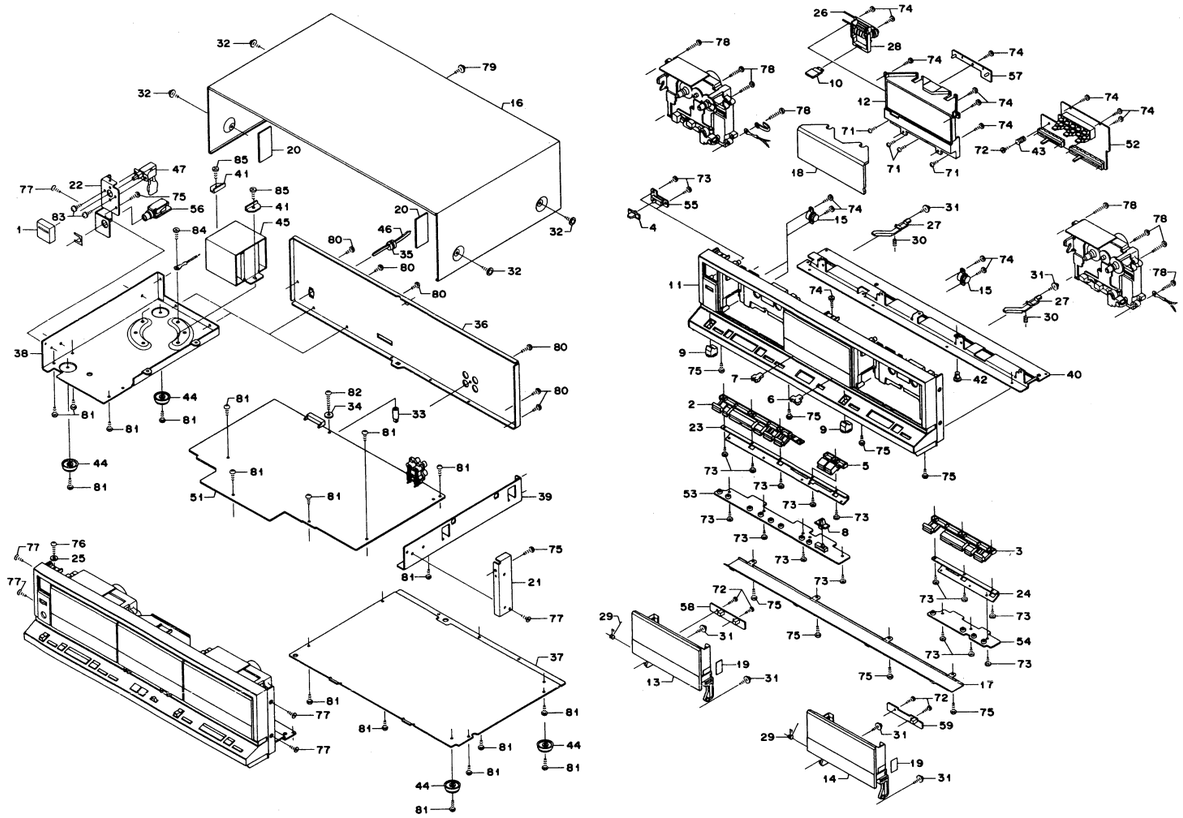
NOTES:

1. Parts order must contain Model Number, Part Number and Description.
2. Ordering quantity of screws and resistors must be multiple of 10 pcs.

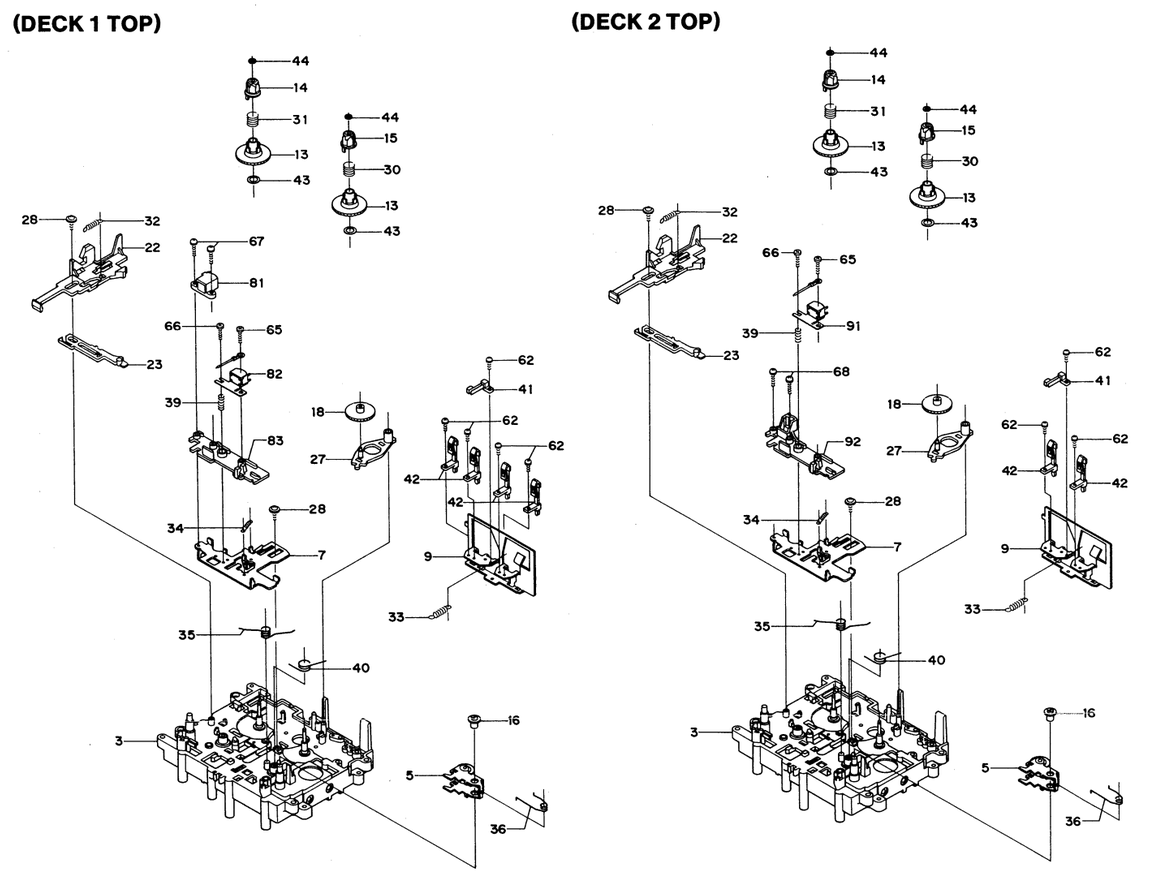
PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol ⚠ in the parts list and the schematic diagram designate components in which safety can be of special significance. When replacing a component identified with ⚠, use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual. Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

CABINET & CHASSIS EXPLODED VIEW



MECHANISM EXPLODED VIEW



MECHANISM PARTS LIST

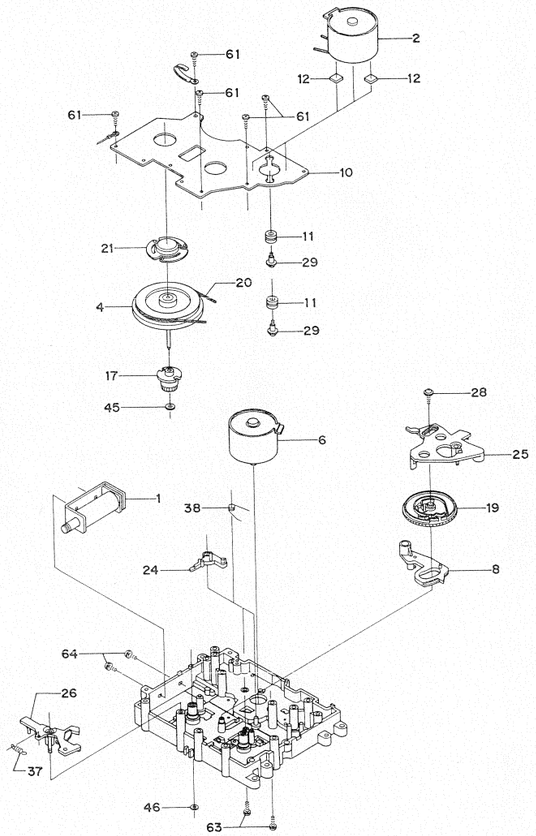
Ref. No.	Part No.	Description	Q'ty
	DECK 1 & DECK 2 SIMILAR PARTS		
	4-2352-02362	Connector 8P Assy [CN2]	1
	4-2352-02361	Connector 8P Assy [CN3]	1
	4-2352-02340	Connector 4P Assy [CN5]	1
	4-2352-02175	Connector 6P Assy [CN6]	1
	4-2352-02460	Connect Assy 3P XH [CN10]	1
	4-2352-02470	Connect Assy 2P XH [CN11]	1
	4-2352-02176	Connect Assy 6P NH [CN12]	1
	4-2352-02869	Connector 1P Assy [CN18]	1
	4-2352-02869	Connector 1P Assy [CN19]	1
	4-2352-02158	Connector 1P Assy	2
	4-2352-02940	Connector 1P Assy	1
	141-2-4469-26000	Cushion	2
	141-2-4469-32000	Cushion	2
	141-2-4469-39000	Cushion	2
	141-2-4729-04000	Lug	2
	141-2-4729-04100	Lug	2
	141-2-4729-04200	Lug	2
1	4-2649-70860	Solenoid [SL1 & SL2]	2
2	4-5279-71511	Motor [M1 & M3]	2
3	141-0-3119-27901	Chassis Assy	2
4	141-0-5219-15000	Flywheel Assy	2
5	141-0-5459-03500	Arm Pinchroller Assy	2
6	141-0-5519-14400	Gear Motor Assy [M2 & M4]	2
7	141-0-7319-35901	Base Slide Assy	2
8	141-0-7419-44300	Lever Assist B Assy	2
9	141-2-3519-81800	Bracket Switch	2
10	141-2-3519-84000	Support Flywheel	2
11	141-2-4459-11800	Cushion Motor	4
12	141-2-4469-21300	Cushion	4
13	141-2-5319-18600	Reel Plate	4
14	141-2-5319-18700	Fin Reel Supply	2
15	141-2-5319-18800	Fin Reel Take-up	2
16	141-2-5369-08600	Bush	2
17	141-2-5519-69100	Gear Flywheel	2
18	141-2-5519-69300	Gear Idler	2
19	141-2-5519-69600	Gear Actuate	2
20	141-2-5649-30100	Belt Drive	2
21	141-2-5739-08000	Thrust Flywheel FWD	2
22	141-2-7319-79200	Rod Eject	2
23	141-2-7319-79300	Rod Eject Base	2
24	141-2-7429-03100	Lever Lock Base	2
25	141-2-7429-03300	Lever Reverse Select	2
26	141-2-7429-03400	Lever Play Start	2

MECHANISM PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty
27	141-2-7439-51600	Arm Idler	2
28	141-2-4219-13201	Screw Washer	6
29	141-2-4219-30100	Screw	4
30	141-2-8559-18600	Spring Reel FWD	2
31	141-2-8559-18700	Spring Reel Revs	2
32	141-2-8519-44500	Spring Tension Arm	2
33	141-2-8549-24500	Spring Base	2
34	141-2-8549-39000	Spring Lever Base	2
35	141-2-8529-39400	Spring Lever Base	2
36	141-2-8529-39000	Spring Arm Pinch Right	2
37	141-2-8549-39500	Spring Lever Start	2
38	141-2-8529-39300	Spring Lever REV Select	2
39	141-2-8519-74300	Spring Azimuth	2
40	141-2-8529-42100	Spring Earth FWD	2
41	4-2319-79890	Leaf Switch (Eject) [S18]	1
41	4-2319-79890	Leaf Switch (Eject) [S24]	1
42	4-2319-79880	Leaf Switch (Cassette) [S17]	1
42	4-2319-79880	Leaf Switch (Interlock) [S19]	1
42	4-2319-79880	Leaf Switch (Metal) [S21]	1
42	4-2319-79880	Leaf Switch (CrO2) [S22]	1
42	4-2319-79880	Leaf Switch (Cassette) [S23]	1
42	4-2319-79880	Leaf Switch (CrO2) [S25]	1
43	141-2-4539-36000	Washer	4
44	141-2-4539-15700	Washer	4
45	141-2-4539-34801	Washer	2
46	141-2-4539-43100	Washer	2
61	411 021 1806	SCR S-TPG BIN 2.6X10	10
62	411 044 7205	SCR PAN+SW 2X4	8
63	411 045 1202	SCR PAN+SW 2.6X5	4
64	411 045 5408	SCR PAN+SW 3X5	4
65	411 030 7707	SCR BIN 2X8	2
66	411 030 4300	SCR BIN 2X10	2
67	411 044 6703	SCR PAN+SW 2X10	2
68	411 044 7908	SCR PAN+SW 2X7	2
	DECK 1 ONLY		
81	4-2422-00190	Erase Head [HD3]	1
82	4-2429-73171	R/P Head [HD2]	1
83	141-2-3529-53700	Spacer Head	1
	DECK 2 ONLY		
91	4-2429-73061	Play Head [HD1]	1
92	141-2-3529-53800	Spacer Head	1

MECHANISM EXPLODED VIEW (Continued)

(DECK 1, 2 BOTTOM)

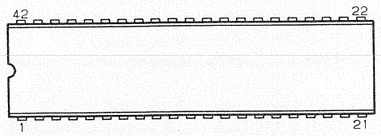


TRANSISTOR	FRONT VIEW	BOTTOM VIEW
2SA 608 2SA 1016 2SC 536 2SC 3331 2SC 3708	E C B	E C B
2SB 808 RN 1201 RN 1202 RN 1203 RN 1205 RN 2202 RN 2203 RN 2205	E C B	E C B
2SD 1450	E C B	E C B
2SC 1846	E C B	E C B
2SD 1406	B C E	B C E

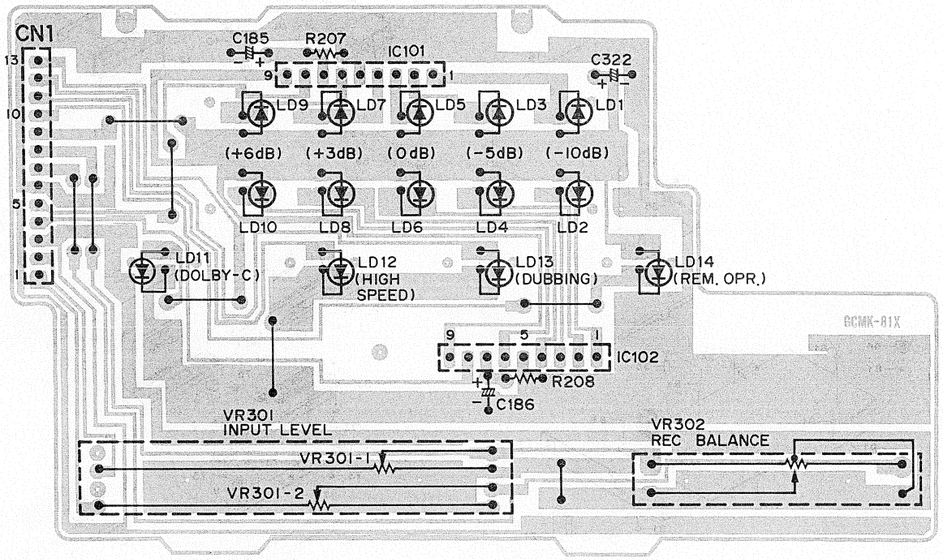
TERMINAL NAME

B → BASE
C → COLLECTOR
E → EMITTER

CX20187 TOP VIEW



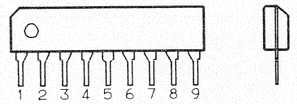
LED METER P.C.BOARD
(BOTTOM VIEW)



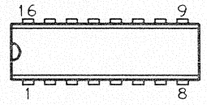
IC PIN NUMBERS DC VOLTAGES										
SYMBOL No.	DEVICE	1	2	3	4	5	6	7	8	9
IC101,102	BA6124	9.3V	9.3V	9.3V	9.5V	0V	9.5V	0.1V	0V	10.9V

IC & TRANSISTOR LEAD IDENTIFICATION

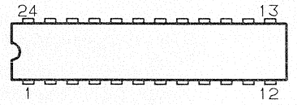
BA6124 FRONT / SIDE VIEWS



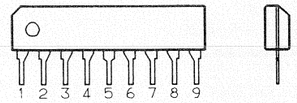
TC4053BP
TD62504P] **TOP VIEW**



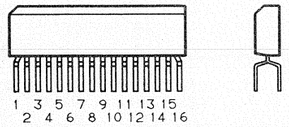
TA8121N TOP VIEW



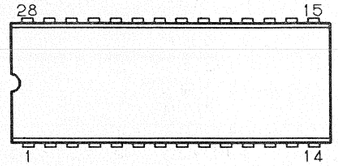
LA6458SS FRONT/SIDE VIEWS



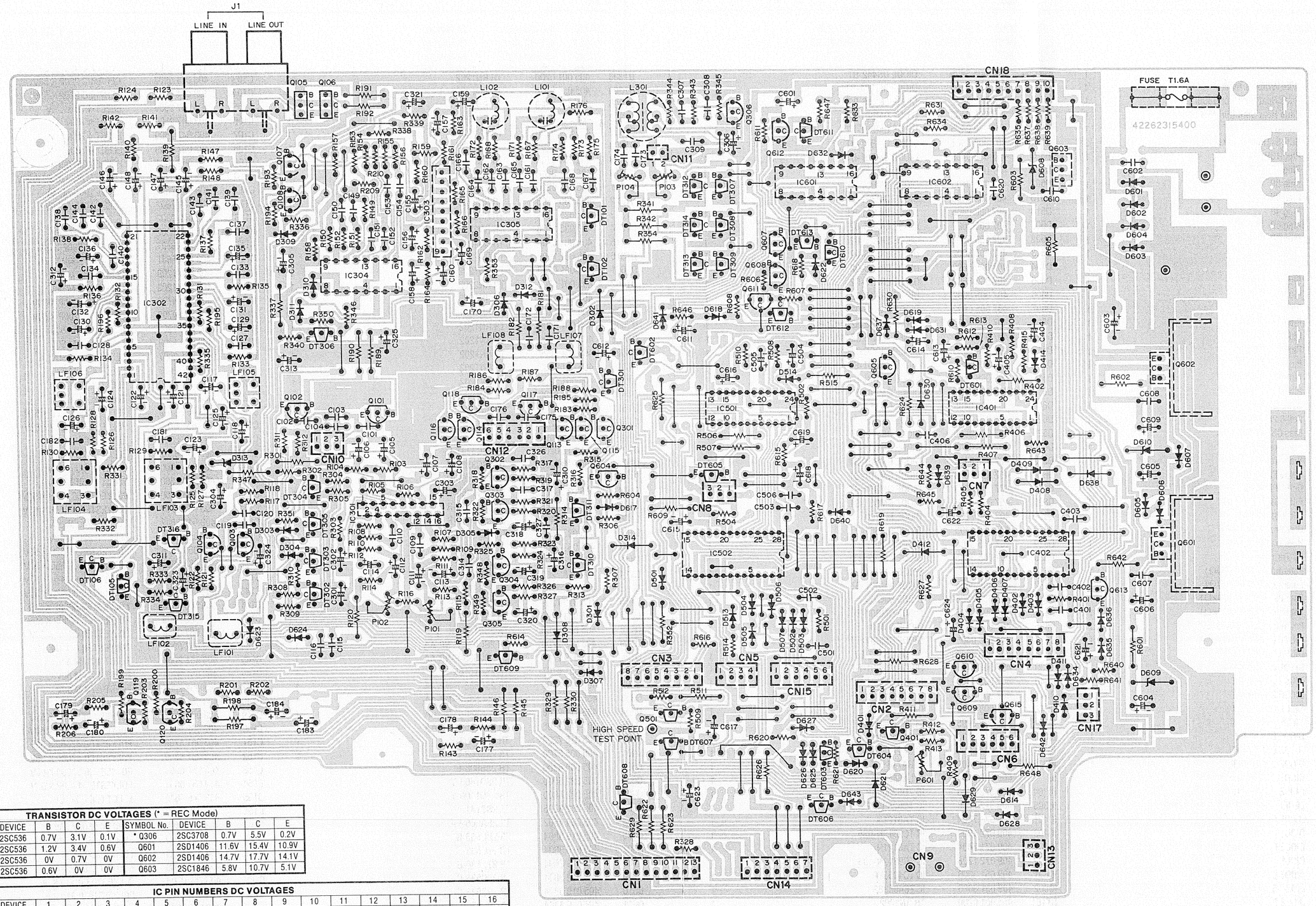
TA7405P FRONT / SIDE VIEWS



TC9312N-035
TC9312N-036] **TOP VIEW**



AMPLIFIER P.C.BOARD
(BOTTOM VIEW)



TRANSISTOR DC VOLTAGES (* = REC Mode)

SYMBOL No.	DEVICE	B	C	E	SYMBOL No.	DEVICE	B	C	E
Q302	2SC536	0.7V	3.1V	0.1V	* Q306	2SC3708	0.7V	5.5V	0.2V
Q303	2SC536	1.2V	3.4V	0.6V	Q601	2SD1406	11.6V	15.4V	10.9V
Q304	2SC536	0V	0.7V	0V	Q602	2SD1406	14.7V	17.7V	14.1V
Q305	2SC536	0.6V	0V	0V	Q603	2SC1846	5.8V	10.7V	5.1V

IC PIN NUMBERS DC VOLTAGES

SYMBOL No.	DEVICE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
IC301	TA7405P	8.7V	2.4V	2.2V	2.3V	2.8V	2.8V	2.8V	0V	2.8V	0V	2.8V	2.8V	2.8V	2.4V	4.0V	2.5V
IC303	LA6458SS	12.6V	6.3V	6.3V	6.3V	0V	6.3V	6.3V	6.3V	–							
IC601	TC4053BP	0.4V	5.1V	0V	4.9V	4.9V	0V	0V	0V	0V	0V	0V	5.1V	0.5V	5.1V	5.1V	5.1V
IC602	TC4053BP	4.8V	4.9V	4.8V	4.9V	4.9V	0V	0V	0V	0V	0V	0V	–	5.1V	0.2V	4.9V	5.1V

- As to the voltage of IC302, IC401, IC402, IC501, and IC502, refer to the SCHEMATIC DIAGRAM of page 17,18,19 and 20.

P.C.BOARD PARTS LIST

Ref. No.	Part No.	Description	Q'ty
	AMPLIFIER P.C.B. ASSY		
51	141-0-1939-19942	Amplifier P.C.B. Assy	1
	⚠ 4-2352-01940	Fuse Clip	2
	⚠ 4-2349-70370	Fuse T 1.6A	1
	111-2-6220-11100	Wire Wrap Terminal	4
	131-2-6201-28000	Plate Heat Sink (for Q308)	1
	131-2-6201-28000	Plate Heat Sink (for Q310)	1
	141-2-3229-46800	Shield Plate	1
	411 020 8004	SCR S-TPG BRZ 3X8	2
CN1	4-2369-76550	Plug 13P	1
CN2	4-2362-00900	Plug 8P	1
CN3	4-2369-71881	Plug 8P	1
CN4	4-2369-75360	Plug 8P	1
CN5	4-2369-73140	Plug 4P	1
CN6	4-2369-75120	Plug 6P	1
CN7	4-2369-71482	Plug 3P	1
CN8	4-2369-71482	Plug 3P	1
CN9	4-2369-73780	RT Pin 1P	2
CN10	4-2369-73130	Plug 3P	1
CN11	4-2362-00770	Plug 2P	1
CN12	4-2369-71452	Plug 6P	1
CN13	4-2369-73130	Plug 3P	1
CN14	4-2369-73410	Plug 7P	1
CN15	4-2369-73160	Plug 6P	1
CN17	4-2369-74490	Plug 3P	1
CN18	4-2369-73678	Plug 10P	1
J1	4-2352-01701	Pin Jack 4P	1
L101	4-2559-70260	Coil 8.2mH,2.2mH	1
L102	4-2559-70260	Coil 8.2mH,2.2mH	1
L301	4-2589-73501	Bias OSC Coil	1
LF101	4-2529-70271	Bias Trap Coil	1
LF102	4-2529-70271	Bias Trap Coil	1
LF103	4-2729-71020	Dolby Filter 20187	1
LF104	4-2729-71020	Dolby Filter 20187	1
LF105	4-2729-70861	Filter Skew	1
LF106	4-2729-70861	Filter Skew	1
LF107	4-2529-70430	Bias Trap 2700 Shld	1
LF108	4-2529-70430	Bias Trap 2700 Shld	1
T1	4-2372-00830	EC Terminal 1P	7
P101	4-2229-76565	Potentiometer (B-200Ω)	1
P102	4-2229-76565	Potentiometer (B-200Ω)	1
P103	4-2229-76560	Potentiometer (B-100kΩ)	1
P104	4-2229-76560	Potentiometer (B-100kΩ)	1
P601	4-2229-76565	Potentiometer (B-200Ω)	1
D301	407 008 0405	DIODE GMB01-BT	1
D302	407 005 3805	DIODE DS442-BT	1
D303	407 008 0405	DIODE GMB01-BT	1
D304	407 008 0405	DIODE GMB01-BT	1
D305	407 008 0405	DIODE GMB01-BT	1
D306	407 008 0405	DIODE GMB01-BT	1
D307	407 008 0405	DIODE GMB01-BT	1
D308	407 005 3805	DIODE DS442-BT	1
D309	407 008 0405	DIODE GMB01-BT	1
D310	407 008 0405	DIODE GMB01-BT	1
D311	407 008 0405	DIODE GMB01-BT	1
D312	407 008 0405	DIODE GMB01-BT	1
D313	407 049 6107	ZENER DIODE GZA11Z-BT	1
D314	407 005 3805	DIODE DS442-BT	1
D401	407 005 8602	DIODE ERA15-02	1
D402	407 008 0405	DIODE GMB01-BT	1
D403	407 008 0405	DIODE GMB01-BT	1
D404	407 008 0405	DIODE GMB01-BT	1
D405	407 008 0405	DIODE GMB01-BT	1
D406	407 008 0405	DIODE GMB01-BT	1
D407	407 008 0405	DIODE GMB01-BT	1
D408	407 005 3805	DIODE DS442-BT	1
D409	407 005 3805	DIODE DS442-BT	1
D410	407 008 0405	DIODE GMB01-BT	1
D411	407 008 0405	DIODE GMB01-BT	1
D412	407 005 3805	DIODE DS442-BT	1
D414	407 008 0405	DIODE GMB01-BT	1
D501	407 005 8602	DIODE ERA15-02	1
D502	407 008 0405	DIODE GMB01-BT	1
D503	407 008 0405	DIODE GMB01-BT	1
D504	407 008 0405	DIODE GMB01-BT	1
D505	407 008 0405	DIODE GMB01-BT	1
D506	407 008 0405	DIODE GMB01-BT	1
D507	407 008 0405	DIODE GMB01-BT	1
D513	407 008 0405	DIODE GMB01-BT	1
D514	407 008 0405	DIODE GMB01-BT	1
D601	407 005 8602	DIODE ERA15-02	1
D602	407 005 8602	DIODE ERA15-02	1
D603	407 005 8602	DIODE ERA15-02	1
D604	407 005 8602	DIODE ERA15-02	1
D605	407 005 8602	DIODE ERA15-02	1
D606	407 005 8602	DIODE ERA15-02	1
D607	407 005 8602	DIODE ERA15-02	1
D608	407 050 5502	ZENER DIODE GZA5.6Y-BT	1
D609	407 049 6107	ZENER DIODE GZA11Z-BT	1
D610	407 049 7005	ZENER DIODE GZA15Y-BT	1
D614	407 008 0405	DIODE GMB01-BT	1
D617	407 008 0405	DIODE GMB01-BT	1
D618	407 008 0405	DIODE GMB01-BT	1
D619	407 008 0405	DIODE GMB01-BT	1
D620	407 008 0405	DIODE GMB01-BT	1
D621	407 005 3805	DIODE DS442-BT	1
D622	407 008 0405	DIODE GMB01-BT	1
D623	407 008 0405	DIODE GMB01-BT	1
D624	407 008 0405	DIODE GMB01-BT	1
D625	407 008 0405	DIODE GMB01-BT	1
D626	407 008 0405	DIODE GMB01-BT	1
D627	407 008 7206	DIODE MA700	1
D628	407 008 0405	DIODE GMB01-BT	1
D629	407 005 3805	DIODE DS442-BT	1
D630	407 005 3805	DIODE DS442-BT	1
D631	407 008 0405	DIODE GMB01-BT	1
D632	407 008 0405	DIODE GMB01-BT	1
D634	407 008 7206	DIODE MA700	1
D635	407 008 0405	DIODE GMB01-BT	1
D636	407 008 0405	DIODE GMB01-BT	1
D637	407 008 0405	DIODE GMB01-BT	1
D638	407 005 3805	DIODE DS442-BT	1
D639	407 008 0405	DIODE GMB01-BT	1
D640	407 008 0405	DIODE GMB01-BT	1
D641	407 008 0405	DIODE GMB01-BT	1
D642	407 008 0405	DIODE GMB01-BT	1
D643	407 008 0405	DIODE GMB01-BT	1
IC301	409 049 3100	IC TA7405P	1
IC302	409 004 9208	IC CX20187	1
IC303	409 068 4409	IC BA715	1
or	409 018 5104	IC LA6458SS	1
IC304	409 072 2606	IC TD62504AP	1
IC305	409 072 2606	IC TD62504AP	1
IC401	409 071 7404	IC TA8121N	1
IC402	409 072 1609	IC TC9312N-035	1
IC501	409 071 7404	IC TA8121N	1
IC502	409 072 1708	IC TC9312N-036	1
IC601	409 051 3006	IC TC4053BP	1
IC602	409 051 3006	IC TC4053BP	1
DT101	405 001 0200	TR RN1202	1
DT102	405 001 0200	TR RN1202	1
DT105	405 001 0200	TR RN1202	1

P.C.BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty
DT106	405 001 0200	TR RN1202	1
DT301	405 001 0200	TR RN1202	1
DT302	405 001 0200	TR RN1202	1
DT303	405 001 0200	TR RN1202	1
DT304	405 001 0200	TR RN1202	1
DT305	405 001 0309	TR RN1203	1
DT306	405 001 0200	TR RN1202	1
DT307	405 001 0200	TR RN1202	1
DT308	405 001 0200	TR RN1202	1
DT309	405 001 0200	TR RN1202	1
DT310	405 001 0200	TR RN1202	1
DT311	405 001 0200	TR RN1202	1
DT312	405 035 1808	TR RN2205	1
DT313	405 035 1808	TR RN2205	1
DT314	405 035 1808	TR RN2205	1
DT315	405 001 0200	TR RN1202	1
DT316	405 001 1108	TR RN2202	1
DT601	405 001 0200	TR RN1202	1
DT602	405 001 1207	TR RN2203	1
DT603	405 035 1402	TR RN1205	1
DT604	405 035 1303	TR RN1201	1
DT605	405 001 0200	TR RN1202	1
DT606	405 001 0200	TR RN1202	1
DT607	405 001 0200	TR RN1202	1
DT608	405 001 0309	TR RN1203	1
DT609	405 001 0200	TR RN1202	1
DT610	405 001 0200	TR RN1202	1
DT611	405 001 1108	TR RN2202	1
DT612	405 001 0200	TR RN1202	1
DT613	405 035 1402	TR RN1205	1
Q101	405 018 0200	TR 2SC3331-U	1
Q102	405 018 0200	TR 2SC3331-U	1
Q103	405 033 6409	TR 2SD1450-R	1
Q104	405 033 6409	TR 2SD1450-R	1
Q105	405 033 6409	TR 2SD1450-R	1
Q106	405 033 6409	TR 2SD1450-R	1
Q107	405 033 6409	TR 2SD1450-R	1
Q108	405 033 6409	TR 2SD1450-R	1
Q113	405 018 7209	TR 2SC3708-S	1
Q114	405 018 7209	TR 2SC3708-S	1
Q115	405 018 7209	TR 2SC3708-S	1
Q116	405 018 7209	TR 2SC3708-S	1
Q117	405 033 6409	TR 2SD1450-R	1
Q118	405 033 6409	TR 2SD1450-R	1
Q119	405 019 2708	TR 2SC536-F-NP-AA	1
Q120	405 019 2708	TR 2SC536-F-NP-AA	1
Q301	405 001 8107	TR 2SA1016K-F	1
Q302	405 019 2708	TR 2SC536-F-NP-AA	1
Q303	405 019 2708	TR 2SC536-F-NP-AA	1
Q304	405 019 2708	TR 2SC536-F-NP-AA	1
Q305	405 019 2708	TR 2SC536-F-NP-AA	1
Q306	405 018 7209	TR 2SC3708-S	1
Q401	405 008 6700	TR 2SB808-F	1
Q501	405 008 6700	TR 2SB808-F	1
Q601	405 022 5000	TR 2SD1406-Y	1
Q602	405 022 5000	TR 2SD1406-Y	1
Q603	405 032 8206	TR 2SC1846-Q	1
Q604	405 004 4502	TR 2SA608-F-NP-AA	1
Q605	405 019 3804	TR 2SC536-G-NP-AA	1
Q607	405 019 3804	TR 2SC536-G-NP-AA	1
Q608	405 019 3804	TR 2SC536-G-NP-AA	1
Q609	405 019 3804	TR 2SC536-G-NP-AA	1
Q610	405 019 3804	TR 2SC536-G-NP-AA	1
Q611	405 019 3804	TR 2SC536-G-NP-AA	1
Q612	405 019 3804	TR 2SC536-G-NP-AA	1
Q613	405 019 3804	TR 2SC536-G-NP-AA	1
Q615	405 019 3804	TR 2SC536-G-NP-AA	1
C101	403 073 6502	CERAMIC 470P K 50V	1
C102	403 073 6502	CERAMIC 470P K 50V	1
C103	403 071 5903	CERAMIC 220P K 50V	1
C104	403 071 5903	CERAMIC 220P K 50V	1
C105	403 047 2509	ELECT 4.7U M 25V	1
C106	403 047 2509	ELECT 4.7U M 25V	1
C107	403 047 2509	ELECT 4.7U M 25V	1
C108	403 047 2509	ELECT 4.7U M 25V	1
C109	403 059 0401	POLYESTER 0.018U K 50V	1
C110	403 059 0401	POLYESTER 0.018U K 50V	1
C111	403 039 7802	ELECT 100U M 10V	1
C112	403 039 7802	ELECT 100U M 10V	1
C113	403 042 0302	ELECT 10U M 16V	1
C114	403 042 0302	ELECT 10U M 16V	1
C115	403 074 5801	CERAMIC 560P K 50V	1
C116	403 074 5801	CERAMIC 560P K 50V	1
C117	403 050 1209	ELECT 2.2U M 50V	1
C118	403 050 1209	ELECT 2.2U M 50V	1
C119	403 070 4709	CERAMIC 1200P K 50V	1
C120	403 070 4709	CERAMIC 1200P K 50V	1
C121	403 050 1209	ELECT 2.2U M 50V	1
C122	403 050 1209	ELECT 2.2U M 50V	1
C123	403 051 2007	ELECT 4.7U M 50V	1
C124	403 051 2007	ELECT 4.7U M 50V	1
C125	403 050 1209	ELECT 2.2U M 50V	1
C126	403 050 1209	ELECT 2.2U M 50V	1
C127	403 061 8709	POLYESTER 4700P K 50V	1
C128	403 061 8709	POLYESTER 4700P K 50V	1
C129	403 048 8302	ELECT 0.47U M 50V	1
C130	403 048 8302	ELECT 0.47U M 50V	1
C131	403 048 1600	ELECT 0.15U M 50V	1
C132	403 048 1600	ELECT 0.15U M 50V	1
C133	403 058 3700	POLYESTER 0.015U K 50V	1
C134	403 058 3700	POLYESTER 0.015U K 50V	1
C135	403 048 3802	ELECT 0.22U M 50V	1
C136	403 048 3802	ELECT 0.22U M 50V	1
C137	403 063 2606	POLYESTER 0.068U K 50V	1
C138	403 063 2606	POLYESTER 0.068U K 50V	1
C139	403 062 0900	POLYESTER 0.047U K 50V	1
C140	403 062 0900	POLYESTER 0.047U K 50V	1
C141	403 063 0503	POLYESTER 6800P K 50V	1
C142	403 063 0503	POLYESTER 6800P K 50V	1
C143	403 057 0908	POLYESTER 0.01U K 50V	1
C144	403 057 0908	POLYESTER 0.01U K 50V	1
C145	403 051 2007	ELECT 4.7U M 50V	1
C146	403 051 2007	ELECT 4.7U M 50V	1
C147	403 051 2007	ELECT 4.7U M 50V	1
C148	403 051 2007	ELECT 4.7U M 50V	1
C149	403 062 5608	POLYESTER 5600P K 50V	1
C150	403 062 5608	POLYESTER 5600P K 50V	1
C151	403 061 8709	POLYESTER 4700P K 50V	1
C152	403 061 8709	POLYESTER 4700P K 50V	1
C153	403 057 6306	POLYESTER 1200P K 50V	1
C154	403 057 6306	POLYESTER 1200P K 50V	1
C155	403 048 7602	ELECT 0.47U M 50V	1
C156	403 048 7602	ELECT 0.47U M 50V	1
C157	403 048 1402	ELECT 0.15U M 50V	1
C158	403 048 1402	ELECT 0.15U M 50V	1
C159	403 040 8508	ELECT 33U M 10V	1
C160	403 040 8508	ELECT 33U M 10V	1
C161	403 057 0908	POLYESTER 0.01U K 50V	1
C162	403 057 0908	POLYESTER 0.01U K 50V	1
C163	403 058 1607	POLYESTER 1500P K 50V	1
C164	403 058 1607	POLYESTER 1500P K 50V	1
C165	403 063 0503	POLYESTER 6800P K 50V	1

P.C.BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty
C166	403 063 0503	POLYESTER 6800P K 50V	1
C167	403 063 0503	POLYESTER 6800P K 50V	1
C168	403 063 0503	POLYESTER 6800P K 50V	1
C169	403 049 1609	ELECT 1U M 50V	1
C170	403 049 1609	ELECT 1U M 50V	1
C171	403 073 6502	CERAMIC 470P K 50V	1
C172	403 073 6502	CERAMIC 470P K 50V	1
C173	403 071 5903	CERAMIC 220P K 50V	1
C174	403 071 5903	CERAMIC 220P K 50V	1
C175	403 074 9007	CERAMIC 680P K 50V	1
C176	403 074 9007	CERAMIC 680P K 50V	1
C177	403 050 1209	ELECT 2.2U M 50V	1
C178	403 050 1209	ELECT 2.2U M 50V	1
C179	403 042 0302	ELECT 10U M 16V	1
C180	403 042 0302	ELECT 10U M 16V	1
C181	403 060 1008	POLYESTER 2700P K 50V	1
C182	403 060 1008	POLYESTER 2700P K 50V	1
C183	403 042 3501	ELECT 100U M 16V	1
C184	403 042 3501	ELECT 100U M 16V	1
C301	403 039 7802	ELECT 100U M 10V	1
C302	403 047 1502	ELECT 4.7U M 25V	1
C303	403 042 0302	ELECT 10U M 16V	1
C304	403 042 3501	ELECT 100U M 16V	1
C305	403 043 7102	ELECT 330U M 16V	1
C306	403 042 0302	ELECT 10U M 16V	1
C307	403 057 0908	POLYESTER 0.01U K 50V	1
C308	403 057 0908	POLYESTER 0.01U K 50V	1
C309	403 083 2105	POLYPRO 0.01U J 250V	1
C310	403 043 7102	ELECT 330U M 16V	1
C311	403 043 4903	ELECT 33U M 16V	1
C312	403 039 4504	ELECT 470U M 6.3V	1
C313	403 044 0201	ELECT 47U M 16V	1
C314	403 075 0508	CERAMIC 6800P K 50V	1
C315	403 059 6601	POLYESTER 0.022U K 50V	1
C316	403 044 0201	ELECT 47U M 16V	1
C317	403 059 6601	POLYESTER 0.022U K 50V	1
C318	403 049 1609	ELECT 1U M 50V	1
C319	403 042 9008	ELECT 22U M 16V	1
C320	403 049 1609	ELECT 1U M 50V	1
C321	403 042 9008	ELECT 22U M 16V	1
C323	403 042 0302	ELECT 10U M 16V	1
C324	403 050 1209	ELECT 2.2U M 50V	1
C325	403 041 3304	ELECT 47U M 10V	1
C326	403 073 6502	CERAMIC 470P K 50V	1
C327	403 074 2701	CERAMIC 0.047U Z 50V	1
C401	403 082 5503	POLYPRO 8200P J 100V	1
C402	403 057 0908	POLYESTER 0.01U K 50V	1
C403	403 069 8404	CERAMIC 0.01U Z 50V	1
C404	403 038 2402	ELECT 100U M 6.3V	1
C405	403 051 2007	ELECT 4.7U M 50V	1
C406	403 070 8608	CERAMIC 1500P K 50V	1
C501	403 082 5503	POLYPRO 8200P J 100V	1
C502	403 057 0908	POLYESTER 0.01U K 50V	1
C503	403 069 8404	CERAMIC 0.01U Z 50V	1
C504	403 038 2402	ELECT 100U M 6.3V	1
C505	403 051 2007	ELECT 4.7U M 50V	1
C506	403 070 8608	CERAMIC 1500P K 50V	1
C601	403 042 9008	ELECT 22U M 16V	1
C602	403 072 2703	CERAMIC 0.022U Z 50V	1
C603	403 046 0605	ELECT 2200U M 25V	1
C604	403 042 3501	ELECT 100U M 16V	1
C605	403 044 3004	ELECT 470U M 16V	1
C606	403 042 3501	ELECT 100U M 16V	1
C607	403 069 8404	CERAMIC 0.01U Z 50V	1
C608	403 069 8404	CERAMIC 0.01U Z 50V	1
C609	403 042 3501	ELECT 100U M 16V	1
C610	403 069 8404	CERAMIC 0.01U Z 50V	1
C611	403 051 2007	ELECT 4.7U M 50V	1
C612	403 043 7102	ELECT 330U M 16V	1
C613	403 042 9008	ELECT 22U M 16V	1
C614	403 042 9008	ELECT 22U M 16V	1
C615	403 042 9008	ELECT 22U M 16V	1
C616	403 044 0201	ELECT 47U M 16V	1
C617	403 040 2704	ELECT 22U M 10V	1
C618	403 050 1209	ELECT 2.2U M 50V	1
C619	403 041 3304	ELECT 47U M 10V	1
C620	403 069 8404	CERAMIC 0.01U Z 50V	1
C621	403 038 7209	ELECT 220U M 6.3V	1
C622	403 042 9008	ELECT 22U M 16V	1
C623	403 042 9008	ELECT 22U M 16V	1
C624	403 050 1209	ELECT 2.2U M 50V	1
R103	401 028 4207	CARBON 100K JA 1/8W	1
R104	401 028 4207	CARBON 100K JA 1/8W	1
R105	401 028 4207	CARBON 100K JA 1/8W	1
R106	401 028 4207	CARBON 100K JA 1/8W	1
R107	401 032 8703	CARBON 8.2K JA 1/8W	1
R108	401 032 8703	CARBON 8.2K JA 1/8W	1
R109	401 032 4606	CARBON 6.8K JA 1/8W	1
R110	401 032 4606	CARBON 6.8K JA 1/8W	1
R111	401 029 6002	CARBON 180K JA 1/8W	1
R112	401 029 6002	CARBON 180K JA 1/8W	1
R113	401 028 3200	CARBON 1K JA 1/8W	1
R114	401 028 3200	CARBON 1K JA 1/8W	1
R115	401 030 9702	CARBON 33K JA 1/8W	1
R116	401 030 9702	CARBON 33K JA 1/8W	1
R117	401 032 0608	CARBON 5.6K JA 1/8W	1
R118	401 032 0608	CARBON 5.6K JA 1/8W	1
R119	401 012 7009	CARBON 10K JA 1/4W	1
R120	401 012 7009	CARBON 10K JA 1/4W	1
R121	401 031 6601	CARBON 4.7K JA 1/8W	1
R122	401 031 6601	CARBON 4.7K JA 1/8W	1
R123	401 030 4707	CARBON 27K JA 1/8W	1
R124	401 030 4707	CARBON 27K JA 1/8W	1
R125	401 032 4606	CARBON 6.8K JA 1/8W	1
R126	401 032 4606	CARBON 6.8K JA 1/8W	1
R127	401 032 8703	CARBON 8.2K JA 1/8W	1
R128	401 032 8703	CARBON 8.2K JA 1/8W	1
R129	401 032 6808	CARBON 7.5K JA 1/8W	1
R130	401 032 6808	CARBON 7.5K JA 1/8W	1
R131	401 031 2405	CARBON 3.9K JA 1/8W	1
R132	401 031 2405	CARBON 3.9K JA 1/8W	1
R133	401 030 4202	CARBON 2.7K JA 1/8W	1
R134	401 030 4202	CARBON 2.7K JA 1/8W	1
R135	401 032 4606	CARBON 6.8K JA 1/8W	1
R136	401 032 4606	CARBON 6.8K JA 1/8W	1
R137	401 032 4002	CARBON 680 JA 1/8W	1
R138	401 032 4002	CARBON 680 JA 1/8W	1
R139	401 016 3809	CARBON 2.2K JA 1/4W	1
R140	401 030 0204	CARBON 2.2K JA 1/8W	1
R141	401 030 1300	CARBON 220K JA 1/8W	1
R142	401 030 1300	CARBON 220K JA 1/8W	1
R143	401 031 2801	CARBON 39K JA 1/8W	1
R144	401 031 2801	CARBON 39K JA 1/8W	1
R145	401 012 7009	CARBON 10K JA 1/4W	1
R146	401 012 7009	CARBON 10K JA 1/4W	1
R147	401 030 7708	CARBON 30K JA 1/8W	1
R148	401 030 7708	CARBON 30K JA 1/8W	1
R149	401 032 1100	CARBON 56K JA 1/8W	1
R150	401 032 1100	CARBON 56K JA 1/8W	1
R151	401 029 1502	CARBON 15K JA 1/8W	1
R152	401 029 1502	CARBON 15K JA 1/8W	1
R153	401 032 8703	CARBON 8.2K JA 1/8W	1

P.C.BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty
R154	401 032 8703	CARBON 8.2K JA 1/8W	1
R155	401 030 9702	CARBON 33K JA 1/8W	1
R156	401 030 9702	CARBON 33K JA 1/8W	1
R157	401 028 4207	CARBON 100K JA 1/8W	1
R158	401 028 4207	CARBON 100K JA 1/8W	1
R159	401 030 4707	CARBON 27K JA 1/8W	1
R160	401 030 4707	CARBON 27K JA 1/8W	1
R161	401 030 0709	CARBON 22K JA 1/8W	1
R162	401 030 0709	CARBON 22K JA 1/8W	1
R163	401 032 5108	CARBON 68K JA 1/8W	1
R164	401 032 5108	CARBON 68K JA 1/8W	1
R165	401 030 9207	CARBON 3.3K JA 1/8W	1
R166	401 030 9207	CARBON 3.3K JA 1/8W	1
R167	401 028 3705	CARBON 10K JA 1/8W	1
R168	401 028 3705	CARBON 10K JA 1/8W	1
R171	401 030 8705	CARBON 330 JA 1/8W	1
R172	401 030 8705	CARBON 330 JA 1/8W	1
R173	401 028 2609	CARBON 100 JA 1/8W	1
R174	401 028 2609	CARBON 100 JA 1/8W	1
R175	401 028 7604	CARBON 12K JA 1/8W	1
R176	401 028 7604	CARBON 12K JA 1/8W	1
R181	401 013 6407	CARBON 12K JA 1/4W	1
R182	401 013 6407	CARBON 12K JA 1/4W	1
R183	401 032 4606	CARBON 6.8K JA 1/8W	1
R184	401 032 4606	CARBON 6.8K JA 1/8W	1
R185	401 030 0204	CARBON 2.2K JA 1/8W	1
R186	401 030 0204	CARBON 2.2K JA 1/8W	1
R187	401 031 6601	CARBON 4.7K JA 1/8W	1
R188	401 031 6601	CARBON 4.7K JA 1/8W	1
R189	401 012 7009	CARBON 10K JA 1/4W	1
R190	401 012 7009	CARBON 10K JA 1/4W	1
R191	401 020 2003	CARBON 4.7K JA 1/4W	1
R192	401 020 2003	CARBON 4.7K JA 1/4W	1
R193	401 030 9207	CARBON 3.3K JA 1/8W	1
R194	401 030 9207	CARBON 3.3K JA 1/8W	1
R195	401 031 4508	CARBON 430 JA 1/8W	1
R196	401 031 4508	CARBON 430 JA 1/8W	1
R197	401 021 1906	CARBON 560 JA 1/4W	1
R198	401 021 1906	CARBON 560 JA 1/4W	1
R199	401 028 9806	CARBON 15 JA 1/8W	1
R200	401 028 9806	CARBON 15 JA 1/8W	1
R201	401 028 2609	CARBON 100 JA 1/8W	1
R202	401 028 2609	CARBON 100 JA 1/8W	1
R203	401 028 7604	CARBON 12K JA 1/8W	1
R204	401 028 7604	CARBON 12K JA 1/8W	1
R205	401 029 1502	CARBON 15K JA 1/8W	1
R206	401 029 1502	CARBON 15K JA 1/8W	1
R209	401 032 1100	CARBON 56K JA 1/8W	1
R210	401 032 1100	CARBON 56K JA 1/8W	1
R301	401 012 5708	CARBON 1K JA 1/4W	1
R302	401 028 3705	CARBON 10K JA 1/8W	1
R303	401 028 4207	CARBON 100K JA 1/8W	1
R304	401 032 9205	CARBON 82K JA 1/8W	1
R305	401 030 4707	CARBON 27K JA 1/8W	1
R306	401 031 6601	CARBON 4.7K JA 1/8W	1
R307	401 031 6601	CARBON 4.7K JA 1/8W	1
R308	401 031 6601	CARBON 4.7K JA 1/8W	1
R309	401 030 9207	CARBON 3.3K JA 1/8W	1
R310	401 031 6601	CARBON 4.7K JA 1/8W	1
R311	401 031 7202	CARBON 47K JA 1/8W	1
R312	401 031 7202	CARBON 47K JA 1/8W	1
R313	401 028 3705	CARBON 10K JA 1/8W	1
R314	401 018 2800	CARBON 330 JA 1/4W	1
R315	401 028 3705	CARBON 10K JA 1/8W	1
R316	401 028 3705	CARBON 10K JA 1/8W	1
R317	401 032 5603	CARBON 680K JA 1/8W	1
R318	401 028 2609	CARBON 100 JA 1/8W	1
R319	401 028 3705	CARBON 10K JA 1/8W	1
R320	401 028 3705	CARBON 10K JA 1/8W	1
R321	401 032 5603	CARBON 680K JA 1/8W	1
R322	401 032 4002	CARBON 680 JA 1/8W	1
R323	401 028 3200	CARBON 1K JA 1/8W	1
R324	401 028 8106	CARBON 120K JA 1/8W	1
R325	401 031 7202	CARBON 47K JA 1/8W	1
R326	401 028 3200	CARBON 1K JA 1/8W	1
R327	401 030 0709	CARBON 22K JA 1/8W	1
R328	401 028 3200	CARBON 1K JA 1/8W	1
R329	401 022 4104	CARBON 68K JA 1/4W	1
R330	401 022 4104	CARBON 68K JA 1/4W	1
R331	401 028 4207	CARBON 100K JA 1/8W	1
R332	401 028 4207	CARBON 100K JA 1/8W	1
R333	401 030 0709	CARBON 22K JA 1/8W	1
R334	401 028 3705	CARBON 10K JA 1/8W	1
R335	401 028 4207	CARBON 100K JA 1/8W	1
R336	401 030 0204	CARBON 2.2K JA 1/8W	1
R337	401 018 2800	CARBON 330 JA 1/4W	1
R338	401 028 3705	CARBON 10K JA 1/8W	1
R339	401 028 3705	CARBON 10K JA 1/8W	1
R340	401 032 4606	CARBON 6.8K JA 1/8W	1
R341	401 020 0801	CARBON 470 JA 1/4W	1
R342	401 018 2800	CARBON 330 JA 1/4W	1
R343	401 028 3705	CARBON 10K JA 1/8W	1
R344	401 031 5505	CARBON 47 JA 1/8W	1
R345	401 030 6404	CARBON 3.9 JA 1/8W	1
R346	401 031 6601	CARBON 4.7K JA 1/8W	1
R347	401 012 4107	CARBON 100 JA 1/4W	1
R348	401 028 3705	CARBON 10K JA 1/8W	1
R349	401 032 5603	CARBON 680K JA 1/8W	1
R350	401 031 6601	CARBON 4.7K JA 1/8W	1
R351	401 028 3705	CARBON 10K JA 1/8W	1
R352	401 012 5708	CARBON 1K JA 1/4W	1
R353	401 032 8703	CARBON 8.2K JA 1/8W	1
R354	401 016 1102	CARBON 22 JA 1/4W	1
R401	401 030 7708	CARBON 30K JA 1/8W	1
R402	401 016 4806	CARBON 22K JA 1/4W	1
R404	401 029 0406	CARBON 150 JA 1/8W	1
R405	401 030 3700	CARBON 270 JA 1/8W	1
R406	401 018 1605	CARBON 33 JA 1/4W	1
R407	401 012 4503	CARBON 100 JA 1/4W	1
R408	401 029 1502	CARBON 15K JA 1/8W	1
R409	401 032 0608	CARBON 5.6K JA 1/8W	1
R410	401 031 9602	CARBON 56 JA 1/8W	1
R411	401 095 1208	MT-FILM 620 JV 1/4W	1
R412	401 031 1903	CARBON 390 JA 1/8W	1
R413	401 028 6607	CARBON 120 JA 1/8W	1
R415	401 029 8501	CARBON 20K JA 1/8W	1
R501	401 030 7708	CARBON 30K JA 1/8W	1
R502	401 030 0709	CARBON 22K JA 1/8W	1
R504	401 029 0406	CARBON 150 JA 1/8W	1
R506	401 018 1605	CARBON 33 JA 1/4W	1
R507	401 012 4503	CARBON 100 JA 1/4W	1
R508	401 029 1502	CARBON 15K JA 1/8W	1
R509	401 032 0608	CARBON 5.6K JA 1/8W	1
R510	401 031 9602	CARBON 56 JA 1/8W	1
R511	401 095 1208	MT-FILM 620 JV 1/4W	1
R512	401 029 0406	CARBON 150 JA 1/8W	1
R514	401 029 0901	CARBON 1.5K JA 1/8W	1
R515	401 016 0105	CARBON 20K JA 1/4W	1
R601	401 020 0306	CARBON 470 JA 1/4W	1
R602	401 020 0306	CARBON 470 JA 1/4W	1
R603	401 020 0801	CARBON 470 JA 1/4W	1
R604	401 030 9702	CARBON 33K JA 1/8W	1

P.C.BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty
R605	401 014 1203	CARBON 15 JA 1/4W	1
R606	401 028 3705	CARBON 10K JA 1/8W	1
R607	401 028 3705	CARBON 10K JA 1/8W	1
R608	401 028 3705	CARBON 10K JA 1/8W	1
R609	401 012 7009	CARBON 10K JA 1/4W	1
R610	401 032 0608	CARBON 5.6K JA 1/8W	1
R611	401 032 1100	CARBON 56K JA 1/8W	1
R612	401 030 0709	CARBON 22K JA 1/8W	1
R613	401 031 7202	CARBON 47K JA 1/8W	1
R614	401 031 6601	CARBON 4.7K JA 1/8W	1
R615	401 032 0608	CARBON 5.6K JA 1/8W	1
R616	401 030 0709	CARBON 22K JA 1/8W	1
R617	401 031 2801	CARBON 39K JA 1/8W	1
R618	401 030 0204	CARBON 2.2K JA 1/8W	1
R619	401 012 5708	CARBON 1K JA 1/4W	1
R620	401 030 9702	CARBON 33K JA 1/8W	1
R621	401 028 7604	CARBON 12K JA 1/8W	1
R622	401 017 0807	CARBON 270 JA 1/4W	1
R623	401 017 0807	CARBON 270 JA 1/4W	1
R624	401 012 7009	CARBON 10K JA 1/4W	1
R625	401 020 2003	CARBON 4.7K JA 1/4W	1
R626	401 016 3809	CARBON 2.2K JA 1/4W	1
R627	401 030 9207	CARBON 3.3K JA 1/8W	1
R628	401 012 7009	CARBON 10K JA 1/4W	1
R629	401 023 7005	CARBON 910 JA 1/4W	1
R630	401 018 1605	CARBON 33 JA 1/4W	1
R631	401 028 2609	CARBON 100 JA 1/8W	1
R633	401 028 2609	CARBON 100 JA 1/8W	1
R634	401 028 2609	CARBON 100 JA 1/8W	1
R635	401 028 2609	CARBON 100 JA 1/8W	1
R637	401 028 2609	CARBON 100 JA 1/8W	1
R638	401 028 2609	CARBON 100 JA 1/8W	1
R639	401 028 2609	CARBON 100 JA 1/8W	1
R640	401 030 9702	CARBON 33K JA 1/8W	1
R641	401 030 0709	CARBON 22K JA 1/8W	1
R642	401 012 7009	CARBON 10K JA 1/4W	1
R643	401 028 3705	CARBON 10K JA 1/8W	1
R644	401 030 0709	CARBON 22K JA 1/8W	1
R645	401 032 0608	CARBON 5.6K JA 1/8W	1
R646	401 032 0608	CARBON 5.6K JA 1/8W	1
R647	401 028 2609	CARBON 100 JA 1/8W	1
R648	401 012 7009	CARBON 10K JA 1/4W	1
	LED METER P.C.B. ASSY		
52	141-0-1939-19950	LED Meter P.C.B. Assy	1
	141-2-3769-21000	Spacer LED	4
	141-2-3769-21100	Spacer LED Meter	1
CN1	4-2352-02191	Connector 13P Assy	1
VR301	4-2229-75650	Slide Volume (A-50kΩx2)	1
VR302	4-2229-76470	Slide Volume (W-200kΩ)	1
IC101	409 003 0008	IC BA6124	1
or	409 020 0906	IC LB1403N	1
IC102	409 003 0008	IC BA6124	1
or	409 020 0906	IC LB1403N	1
LD1	407 062 9406	LED SLB-72GG4HL (−10dB)	1
LD2	407 062 9406	LED SLB-72GG4HL (−10dB)	1
LD3	407 062 9406	LED SLB-72GG4HL (−5dB)	1
LD4	407 062 9406	LED SLB-72GG4HL (−5dB)	1
LD5	407 062 9406	LED SLB-72GG4HL (0dB)	1
LD6	407 062 9406	LED SLB-72GG4HL (0dB)	1
LD7	407 062 9505	LED SLB-72UR4HL (+3dB)	1
LD8	407 062 9505	LED SLB-72UR4HL (+3dB)	1
LD9	407 062 9505	LED SLB-72UR4HL (+6dB)	1
LD10	407 062 9505	LED SLB-72UR4HL (+6dB)	1
LD11	407 062 9406	LED SLB-72GG4HL (Dolby-C)	1
LD12	407 062 9505	LED SLB-72UR4HL (High Speed Dubbing)	1
LD13	407 062 9505	LED SLB-72UR4HL (Dubbing)	1
LD14	407 062 9505	LED SLB-72UR4HL (Remote Operation)	1
C185	403 042 0302	ELECT 10U M 16V	1
C186	403 042 0302	ELECT 10U M 16V	1
C322	403 044 0201	ELECT 47U M 16V	1
R207	401 028 3705	CARBON 10K JA 1/8W	1
R208	401 028 3705	CARBON 10K JA 1/8W	1
	FUNCTION KEY 1 P.C.B. ASSY		
53	141-0-1939-19981	Function Key 1 P.C.B. Assy	1
CN4	4-2352-02932	Connector 8P Assy	1
CN14	4-2359-76979	Connector 7P Assy	1
S1	4-2312-05801	Keyboard Switch (Rew)	1
S2	4-2312-05801	Keyboard Switch (Rec)	1
S4	4-2312-05801	Keyboard Switch (Play)	1
S5	4-2312-05801	Keyboard Switch (Stop)	1
S6	4-2312-05801	Keyboard Switch (F.Fwd)	1
S7	4-2312-05801	Keyboard Switch (Pause)	1
S8	4-2312-05801	Keyboard Switch (Normal Dubbing)	1
S9	4-2312-05801	Keyboard Switch (High Speed Dubbing)	1
S10	4-2319-74200	Slide Switch (Dolby NR)	1
	FUNCTION KEY 2 P.C.B. ASSY		
54	141-0-1939-19991	Function Key 2 P.C.B. Assy	1
CN15	4-2352-02639	Connector 6P Assy	1
S12	4-2312-05801	Keyboard Switch (Rew)	1
S14	4-2312-05801	Keyboard Switch (Play)	1
S15	4-2312-05801	Keyboard Switch (Stop)	1
S16	4-2312-05801	Keyboard Switch (F.Fwd)	1
	TIMER P.C.B. ASSY		
55	141-0-1939-20000	Timer P.C.B. Assy	1
CN17	4-2359-77033	Connector 3P Assy	1
S26	4-2319-74200	Slide Switch (Timer Standby)	1
	HEADPHONE P.C.B. ASSY		
56	141-0-1939-20010	Headphone P.C.B. Assy	1
CN13	4-2359-76662	Connector 3P Assy	1
J1	4-2359-77530	Jack 3P Slim	1
	LAMP P.C.B. ASSY		
57	141-0-1939-20030	Lamp P.C.B. Assy	1
CN9	4-2352-02225	Connector 2P Assy	1
PL1	4-6129-70740	Lamp (16V, 67mA)	1
PL2	4-6129-70740	Lamp (16V, 67mA)	1
	LED 1 P.C.B. ASSY		
58	141-0-1939-20241	LED 1 P.C.B. Assy	1
CN7	4-2352-02461	Connect Assy 3P NH	1
LD15	407 062 9208	LED SLB-55MG3 (Play)	1
LD16	407 062 9307	LED SLB-55VR3 (Rec)	1
	LED 2 P.C.B. ASSY		
59	141-0-1939-20251	LED 2 P.C.B. Assy	1
CN8	4-2352-02397	Connector 3P Assy	1
LD18	407 062 9208	LED SLB-55MG3 (Play)	1

NOTES:

1. Parts order must contain Model Number, Part Number and Description.
2. Ordering quantity of screws and resistors must be multiple of 10 pcs.

SCHEMATIC DIAGRAM

No.	Name	Position	No.	Name	Position
S1	REW Switch (Deck 1)	OFF	S16	F.FWD Switch (Deck 2)	OFF
S2	REC Switch (Deck 1)	OFF	S17	Cassette Switch (Deck 1)	OFF
S4	PLAY Switch (Deck 1)	OFF	S18	Eject Switch (Deck 1)	OFF
S5	STOP Switch (Deck 1)	OFF	S19	Interlock Switch (Deck 1)	OFF
S6	F.FWD Switch (Deck 1)	OFF	S21	Metal Switch (Deck 1)	OFF
S7	PAUSE Switch (Deck 1)	OFF	S22	CrO_2 Switch (Deck 1)	OFF
S8	Dubbing Switch (Normal)	OFF	S23	Cassette Switch (Deck 2)	OFF
S9	Dubbing Switch (High Speed)	OFF	S24	Eject Switch (Deck 2)	OFF
S10	Dolby NR Switch	OFF	S25	CrO_2 Switch (Deck 2)	OFF
S12	REW Switch (Deck 2)	OFF	S26	Timer Standby Switch	OFF
S14	PLAY Switch (Deck 2)	OFF	S27	Power Switch	OFF
S15	STOP Switch (Deck 2)	OFF			

PRODUCT SAFETY NOTICE

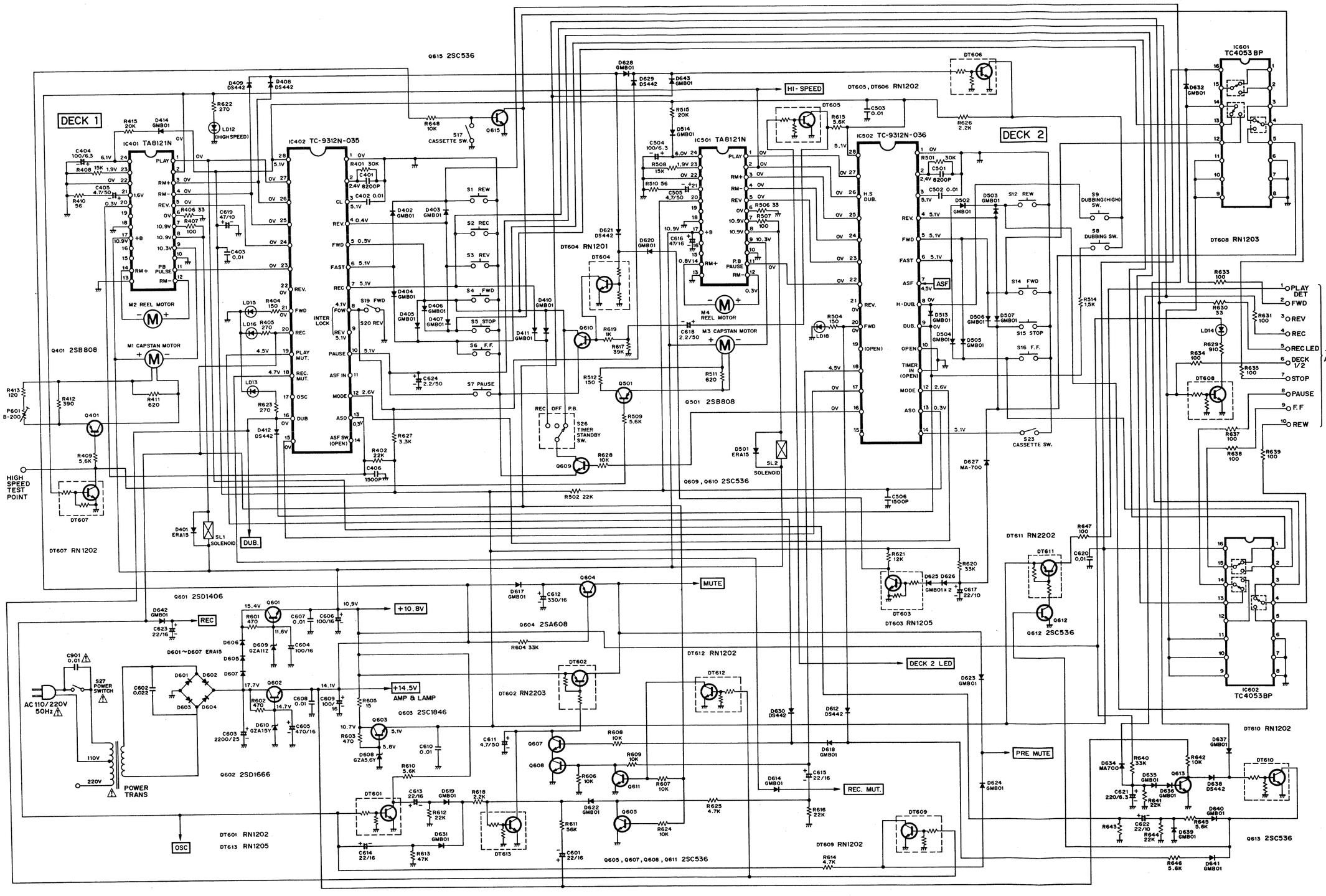
Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol ⚠ in the parts list and the schematic diagram designate components in which safety can be of special significance. When replacing a component identified with ⚠, use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual.
Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

NOTES:

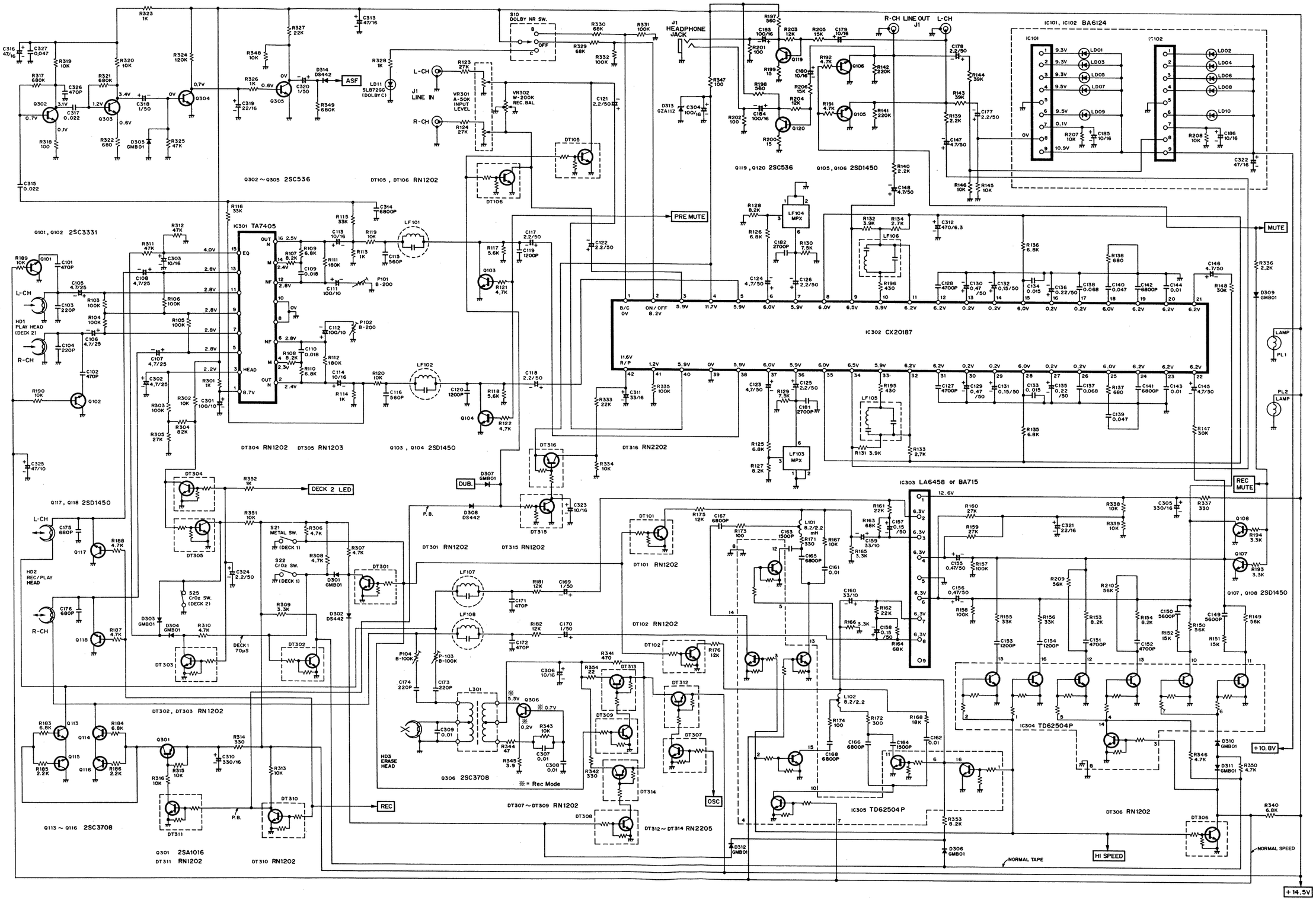
1. All resistors values are indicated in "ohm" ($K=10^3$, $M=10^6$).
2. All capacitors values are indicated in "μF" ($P=10^{-12}$).
3. All voltages indicated on the schematics are measured under the following conditions.
   a. Use a V.T.V.M.
   b. All voltages ±10 % with respect to chassis ground
   c. No signals at input terminals
   d. AC input at 220 volts 50 Hz
4. This is a basic schematic diagram.

Because Fisher products are subject to continuous improvement, Fisher Corporation reserves the right to make any changes or modifications without notice.

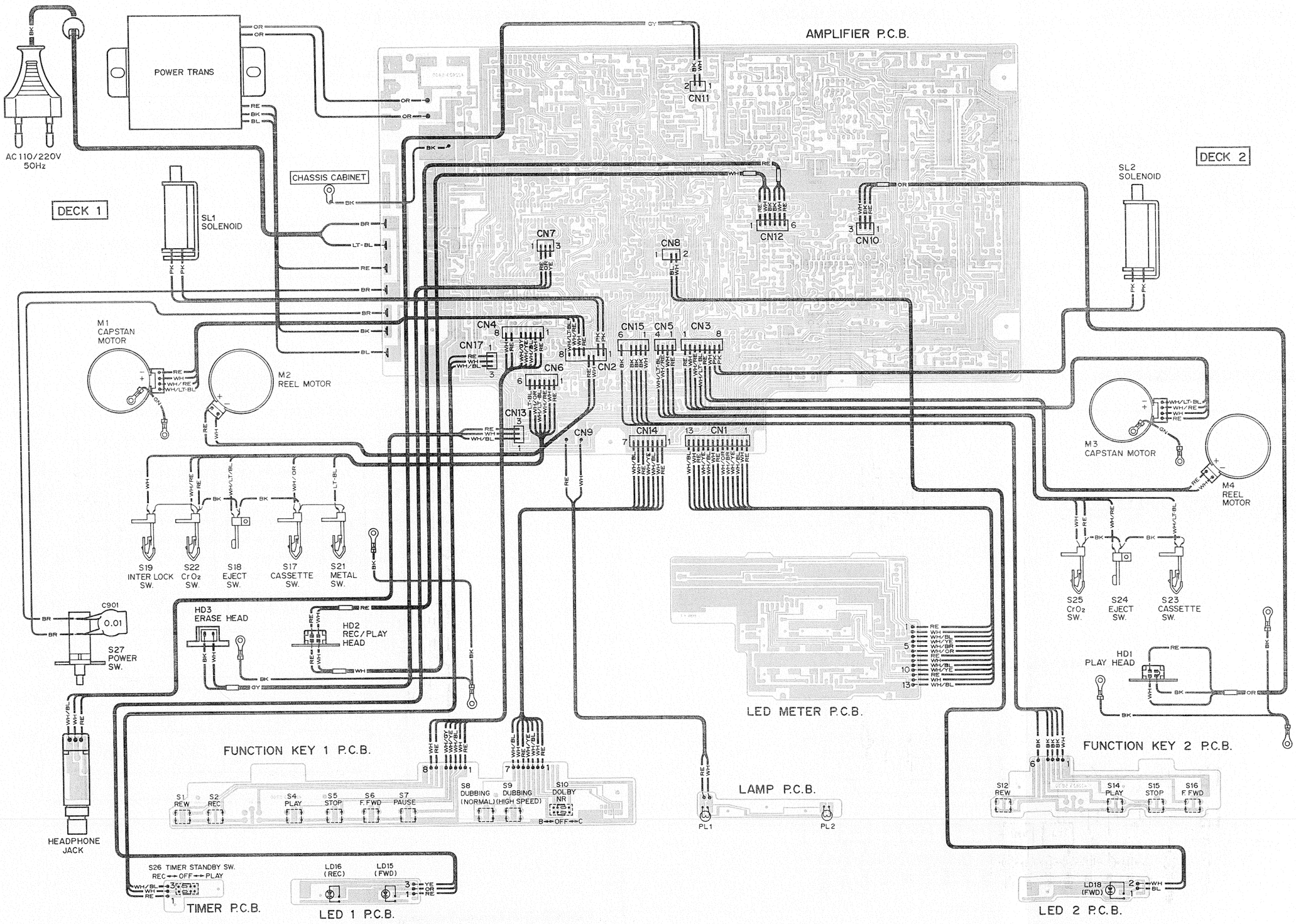
SCHEMATIC DIAGRAM (Control Section)



SCHEMATIC DIAGRAM (Amplifier Section)

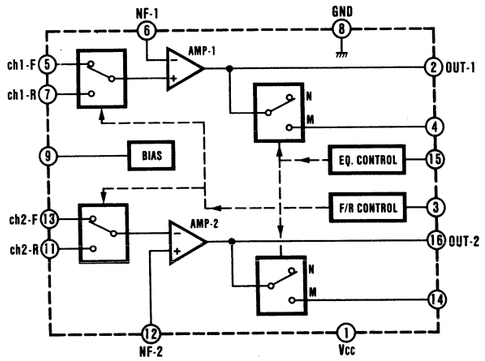


POINT TO POINT WIRING DIAGRAM

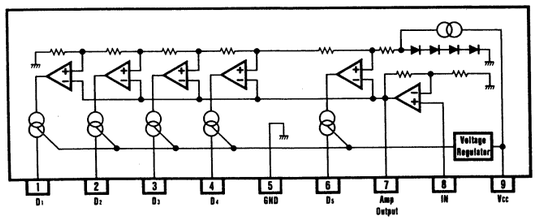


IC BLOCK DIAGRAM

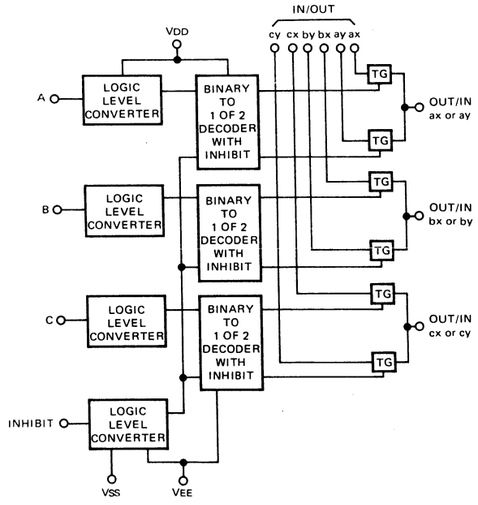
TA7405P BLOCK DIAGRAM



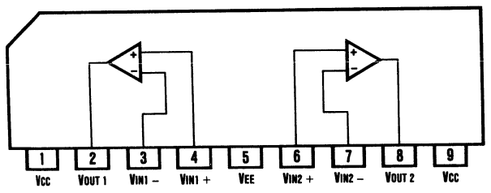
BA6124 BLOCK DIAGRAM



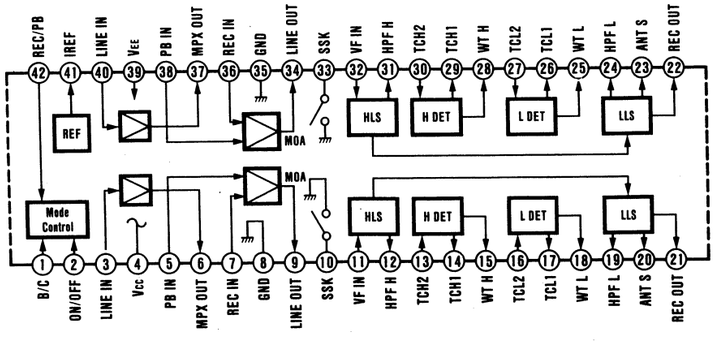
TC4053BP BLOCK DIAGRAM



LA6458SS BLOCK DIAGRAM

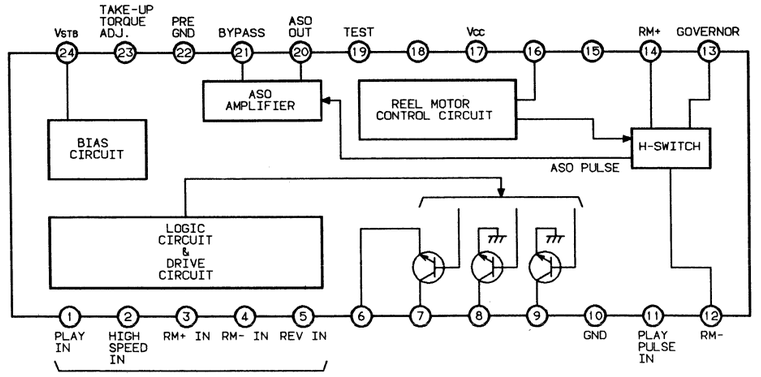


CX20187 BLOCK DIAGRAM

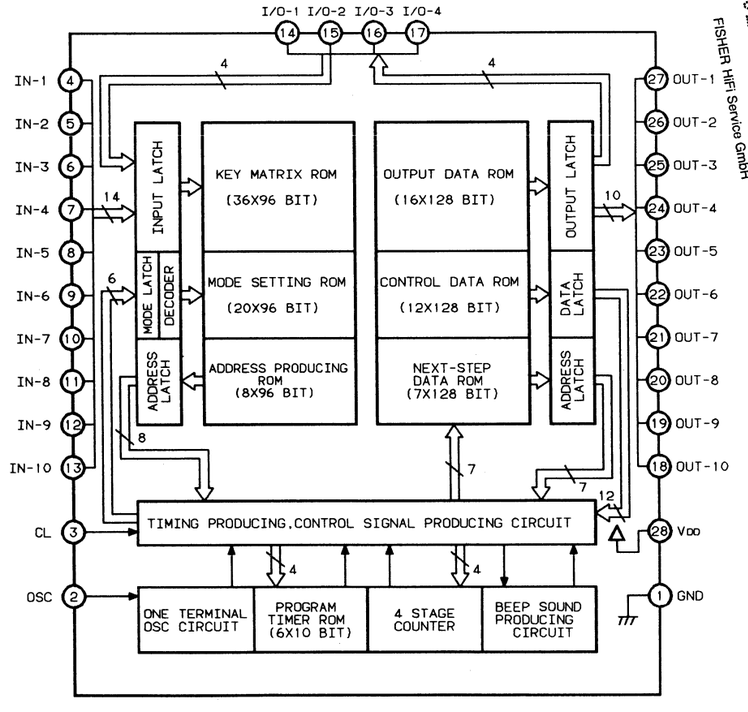


IC BLOCK DIAGRAM (Continued)

TA8121N BLOCK DIAGRAM



TC9312N-035 / TC9312N-036 BLOCK DIAGRAM



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